

WHAT IS CLAIMED IS:

1. A filter comprising:

a housing having a top, a base, and at least one sidewall extending from the top to the base, the housing defining an inlet port and an outlet port through the at least one sidewall, and a breather port in the base, the housing further defining an internal volume; and

adsorbent filter media disposed within the internal volume of the housing, the housing defining a first path for flow of fluid through the breather port in the base to the filter media and a second path for flow of fluid through the inlet port, into contact with the filter media, and out the outlet port.

2. The filter of claim 1, wherein the adsorbent is mounted within the housing.

3. The filter of claim 1, wherein the housing comprises a non-porous material.

4. The filter of claim 1, further comprising a microporous membrane disposed over the inlet port.

5. The filter of claim 4, wherein the microporous membrane comprises a polytetrafluoroethylene membrane.

6. The filter of claim 1, further comprising a microporous membrane disposed over the outlet port.

7. The filter of claim 6, wherein the microporous membrane comprises a polytetrafluoroethylene membrane.

8. The filter of claim 1, further comprising a mounting adhesive disposed on the base.
9. The filter of claim 1, wherein the base comprises a diffusion channel layer defining a diffusion channel as at least a part of the path for fluid flow through the breather port to the filter media.
10. The filter of claim 1, wherein the filter media comprises carbon filter material.
11. The filter of claim 1, further comprising a porous support layer disposed within the internal volume.
12. The filter in claim 11, wherein the filter media is mounted on the porous support layer.
13. A device, comprising:
 - a housing having a top surface, a base, and at least one sidewall extending from the top surface to the base, the housing defining an inlet port and an outlet port and an internal volume;
 - mounting adhesive disposed on the base;
 - filter media disposed within the internal volume of the housing;
 - a diffusion channel layer defining a diffusion channel, the filter media disposed in fluid communication with the diffusion channel;
 - the filter defining a first path for flow of fluid through the breather port and diffusion channel into contact with the filter media; and

the filter defining a second path for flow through the inlet port, into contact with the filter media, and out the outlet port.

14. An electronic enclosure assembly comprising:

- (a) an enclosure defining a vent opening;
- (b) a disk rotatably mounted within the enclosure; and
- (c) a filter construction positioned within the enclosure, the filter construction comprising:
 - (i) a housing having a top, a base, and at least one sidewall extending from the top to the base, the housing defining an inlet port and an outlet port through the at least one sidewall, and a breather port in the base wherein the breather port is disposed over the vent opening of the enclosure, the housing further defining an internal volume, and
 - (ii) adsorbent filter media disposed within the internal volume of the housing, the housing defining a first path for flow of fluid through the breather port in the base to the filter media and a second path for flow of fluid through the inlet port, into contact with the filter media, and out the outlet port.

15. The electronic enclosure assembly of claim 14, wherein the base comprises a diffusion channel layer defining a diffusion channel as at least a part of the path for fluid flow through the breather port to the filter media.

16. A method of removing contaminants from an electronic enclosure assembly, the method comprising:

- (a) positioning a filter construction within a disk drive assembly having a vent opening, the filter construction comprising:

- (i) a housing having a top, a base, and at least one sidewall extending from the top to the base, the housing defining an inlet port and an outlet port through the at least one sidewall, and a breather port in the base wherein the breather port is disposed over the vent opening of the disk drive assembly, the housing further defining an internal volume, and
 - (ii) adsorbent filter media disposed within the internal volume of the housing, the housing defining a first path for flow of fluid through the breather port in the base to the filter media and a second path for flow of fluid through the inlet port, into contact with the filter media, and out the outlet port;
- (b) filtering an incoming air stream with the adsorbent filter media, the incoming air stream entering the disk drive assembly through the vent opening; and
 - (c) filtering an internal air current with the adsorbent filter media, the internal air current moving within the disk drive assembly, entering the internal volume of the housing through the inlet port, and exiting through the outlet port.

17. The method according to claim 16, wherein the step of positioning a filter construction at least partially within a disk drive assembly comprises positioning the filter construction within the disk drive assembly wherein the filter construction comprises a diffusion channel between the breather port and the internal volume of the housing.

18. The method according to claim 16, wherein the step of filtering an internal air current with the adsorbent filter media comprises:

(a) filtering an internal air current with the adsorbent filter media, the internal air current circulating within the disk drive assembly.